

Application No. 10/716,785

REMARKS

Claims 1-30 are all the claims pending in the present application.

Claims 1 and 14 have been amended to incorporate the limitations of claim 6 and claim 20, respectively. Accordingly, claims 6 and 20 have been canceled.

Claims 1-30 stand rejected on prior art grounds.

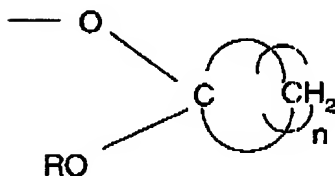
Reconsideration of the Examiner's prior art rejections is respectfully requested based on the following discussion.

I. The 35 U.S.C. §102(b) Rejection based on Sooriyakumaran et al.

Claims 1-4, 10, 11-18, 24-27 and 30 stand rejected under 35 U.S.C. §102(b) as being anticipated by Sooriyakumaran et al. (US 2002/0081520 A1).

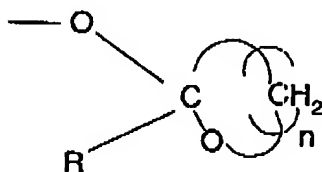
As indicated above, claim 6 has been canceled, rendering that rejection moot.

The Office Action argues that Sooriyakumaran et al. discloses a tetrahydropyranyloxy group which is a cyclic acetal group. Applicants submit that Sooriyakumaran et al. fails to teach each and every aspect of the present invention as recited in claim 1, and in particular, fails to teach a cyclic ketal acid-labile moiety comprising a structure of the form



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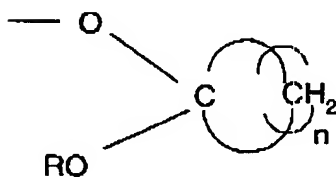


where n is any integer from 2 to 15 and R is an alkyl or a halogenated alkyl, as recited in claims 1 and 14, as amended. Therefore, Applicants submit that claim 1 is patentably distinct from Sooriyakumaran et al. Claims 2-4, 10, 11-13 and 15-18, 24-27 and 30 are similarly patentable by virtue of their dependence on claims 1 and 14. Thus, Applicants respectfully request that these rejections be reconsidered and withdrawn.

II. The 35 U.S.C. §103(a) Rejection based on Sooriyakumaran et al. in view of Bucchignano et al.

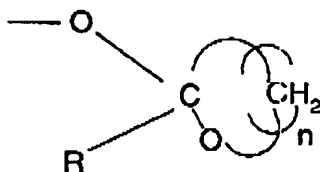
Claims 1-27 and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sooriyakumaran et al. (US 2002/0081520 A1) in view of Bucchignano et al. (6,037,097). Claims 6 and 20 have been canceled, rendering those rejections moot.

As discussed above, Sooriyakumaran et al. fails to disclose a cyclic ketal acid-labile moiety comprising a structure of the form



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where n is any integer from 2 to 15 and R is an alkyl or a halogenated alkyl.

As understood, Bucchignano et al. discloses resists utilizing a cyclic aliphatic ketal substituent as an acid labile protecting group for an aqueous base soluble polymer or copolymer (e.g. col. 2, lines 36-39), which have improved shelf-life and vacuum stability and are useful in e-beam lithographic applications (e.g. col. 1, lines 11-14). However, Bucchignano et al. fails to teach or suggest a resist for photolithography having a silsequioxane backbone and a solubility inhibiting cyclic ketal pendant acid-labile moiety having a low activation energy for acid-catalyzed cleaving, unlike the present invention. The present invention is particularly useful for photolithographic imaging methods (page 11, line 9).

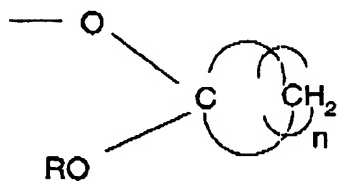
Applicants submit that there is no motivation to combine the teachings Sooriyakumaran et al. with the teachings of Bucchignano et al. to arrive at the present invention. Thus, Applicants submit that claims 1-5, 7-19, 21-27 and 30 are patentable over the cited references. Thus, Applicants respectfully request that these rejections be reconsidered and withdrawn.

III. The 35 U.S.C. §103(a) Rejection based on Sooriyakumaran et al. in view of Khojasteh et al.

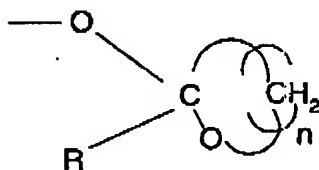
Claims 28 and 29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sooriyakumaran et al. (US 2002/0081520 A1) in view of Khojasteh et al. (US 2002/0058204 A1).

As discussed above, Sooriyakumaran et al. fails to teach or suggest a cyclic ketal acid-labile moiety comprising a structure of the form

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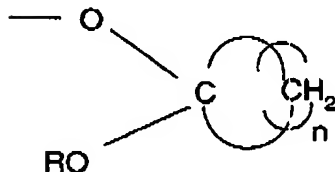


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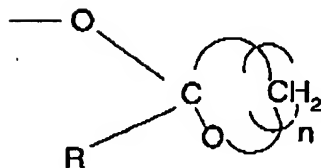


where n is any integer from 2 to 15 and R is an alkyl or a halogenated alkyl.

Khojasteh et al. fails to overcome the deficiencies of Sooriyakumaran et al., and in particular fails to teach or suggest a cyclic ketal acid-labile moiety comprising a structure of the form



or



where n is any integer from 2 to 15 and R is an alkyl or a halogenated alkyl.

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Thus, Applicants submit that claims 28 and 29 are patentable over the cited references, and respectfully request that these rejections be reconsidered and withdrawn.

IV. The 35 U.S.C. §103(a) Rejection based on Sooriyakumaran et al. in view of in view of Bucchignano et al. and further in view of Khojasteh et al.

Claims 28 and 29 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Sooriyakumaran et al. (US 2002/0081520 A1) in view of in view of Bucchignano et al. (6,037,097) as applied to claim 27, and further in view of Khojasteh et al. (US 2002/0058204 A1).

As discussed above, there is no motivation to combine the teachings or suggestions of Sooriyakumaran et al. and Bucchignano et al. to arrive at the present invention. Khojasteh et al., fails to teach or suggest a resist for photolithography having a silsequioxane backbone and a solubility inhibiting cyclic ketal pendant acid-labile moiety having a low activation energy for acid-catalyzed cleaving, and thus fails to overcome the deficiencies of Sooriyakumaran et al. and Bucchignano et al.

Thus, Applicants submit that claims 28 and 29 are patentable over the cited references, and respectfully request that these rejections be reconsidered and withdrawn.

CONCLUSION

In view of the foregoing, Applicants submit that claims 1-5, 7-19 and 21-30, all the claims currently being examined in the application, are patentably distinct from the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time. Should the Examiner find the application to be other than in condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below to discuss any other changes deemed

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necessary. The Commissioner is authorized to charge any additional fees due or credit overpayments to Deposit Account No. 09-0458.

Applicants' undersigned attorney may be reached by telephone at (845) 894-6919. All correspondence should continue to be directed to the address listed below.

Respectfully submitted,

A handwritten signature in black ink that reads "Todd M. C. Li" followed by the date "5/27/05". The signature is written in a cursive, slightly slanted style.

Todd M. C. Li

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